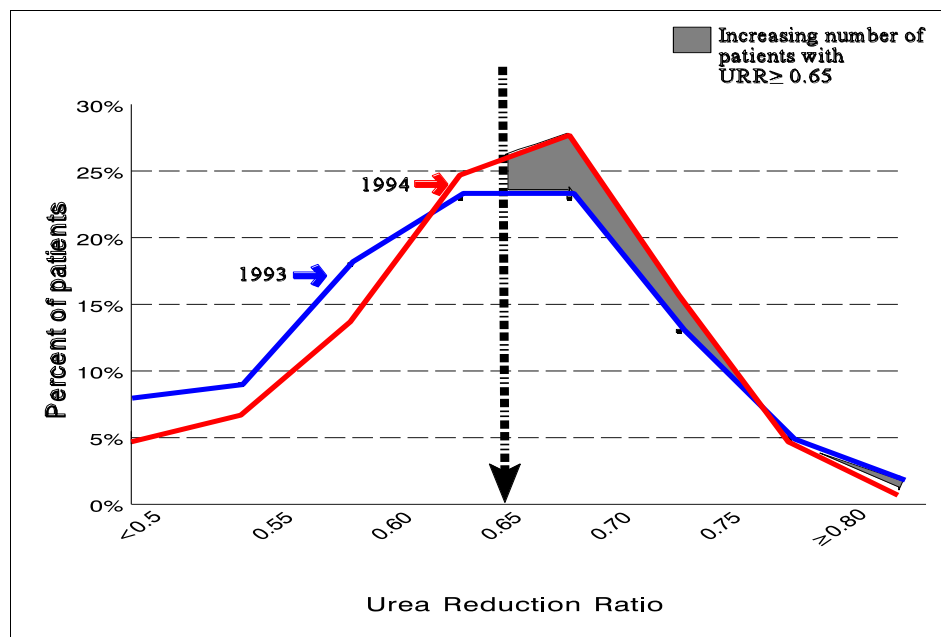


# HIGHLIGHTS

## from the 1995 ESRD Core Indicators Study for Hemodialysis Patients

Distribution of URR values for adult in-center hemodialysis patients,  
Oct - Dec 1993 compared to Oct - Dec 1994



A national assessment of clinical indicators to support the efforts of health professionals to improve care for patients with End-Stage Renal Disease.

JANUARY 1996



## Core Indicator Project

The **ESRD Core Indicators Project** is a collaborative project between the Health Care Financing Administration (HCFA), the End-Stage Renal Disease (ESRD) Networks (Figure 1), and ESRD dialysis facilities. This project provides an annual snapshot of clinical measures, or core indicators, that assess care surrounding dialysis. The indicators (Figure 2) used in this project were identified by a work group of representatives from the renal community and HCFA. This highlight report provides a comparison of the core indicator results from the last quarters of 1994 and of 1993 for the 16 networks that participated in both years of this study. A more complete report of results, including data from all 18 networks for the last quarter of 1994, will be distributed in the near future.

Data for this project, which focuses on a random sample of over 6,000 adult (aged  $\geq 18$  years), in-center hemodialysis patients in each year, were abstracted by staff at more than 2,000 dialysis facilities in the United States. In addition to presenting highlights of findings, this document emphasizes that important improvements in care can still be made.

Figure 1

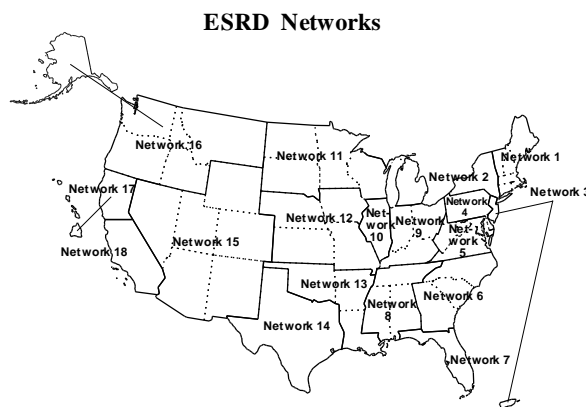
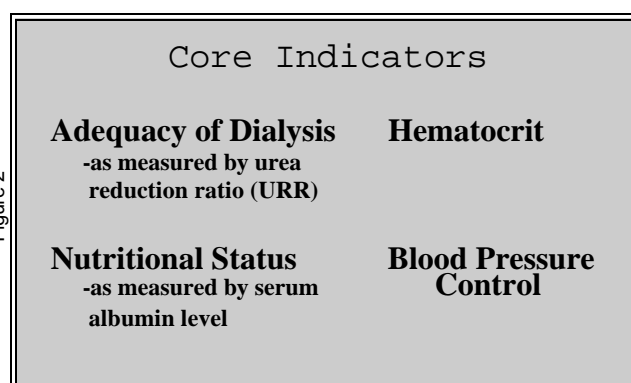


Figure 2



## 1995 CORE INDICATOR RESULTS

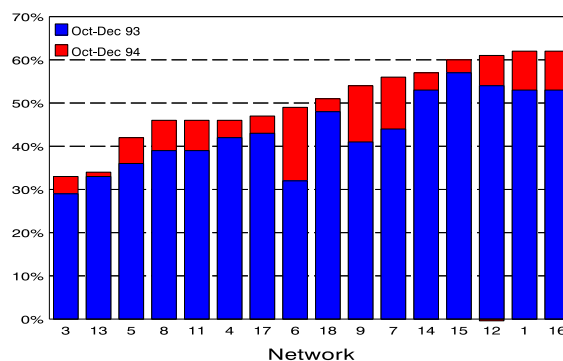
### ADEQUACY OF DIALYSIS

#### Findings:

- ⇒ Increase in average URR from 1993 to 1994: 0.627 to 0.64.
- ⇒ In 1994, the percent of patients who received hemodialysis with  $URR \geq 0.65$  ranged from 32% to 62% in participating ESRD Networks across the United States (Figure 3).

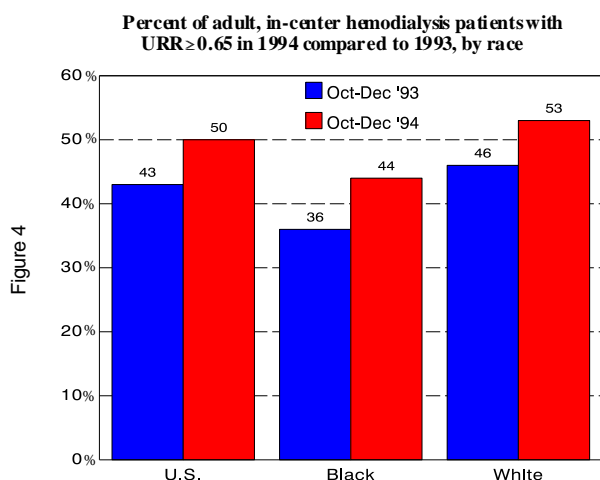
Figure 3

Percent of adult, in-center hemodialysis patients with mean  $URR \geq 0.65$  in 1994 compared to 1993, by Network



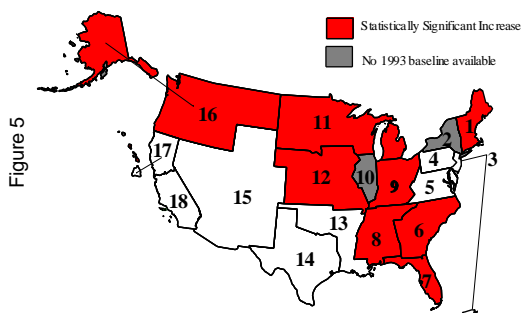
**Improvement:** For 16 networks with data both years:

- ⇒ The percent of patients with a URR  $\geq 0.65$  increased significantly (Figure 4).



- ⇒ This percentage point increase means that approximately 10,000 more hemodialysis patients in the U.S. were receiving dialysis with a URR  $\geq 0.65$  in late 1994 than would have been receiving dialysis at this level in late 1993 (see cover).
- ⇒ Statistically significant improvement occurred in selected geographic areas (Figure 5).

Network areas with statistically significant increase in percent of patients receiving dialysis with URR  $\geq 0.65$  from 1993 to 1994



**Guideline:** The Renal Physicians Association and a National Institutes of Health Consensus Development Conference Panel have recommended that adequate hemodialysis should result in a Kt/V  $\geq 1.2$ , approximately equivalent to URR  $\geq 0.65$ .

**Opportunities for Improvement:** Although there was a significant improvement in the percent of patients receiving adequate hemodialysis, further positive gains are needed for the 50% of patients whose URR has been less than 0.65. This opportunity to improve care is even greater for black hemodialysis patients.

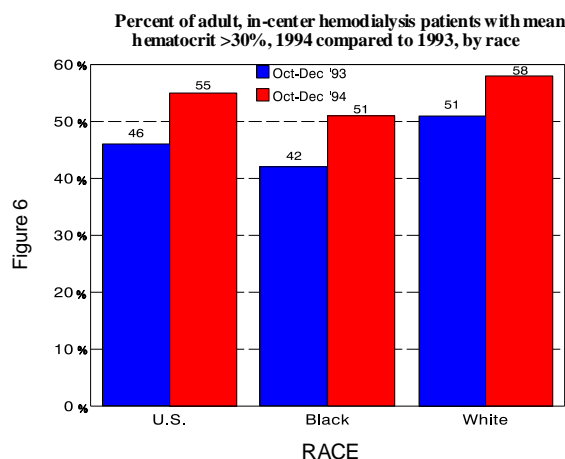
## Findings:

- ⇒ Increase in mean hematocrit from 1993 to 1994 was 30.8% to 31.3%.

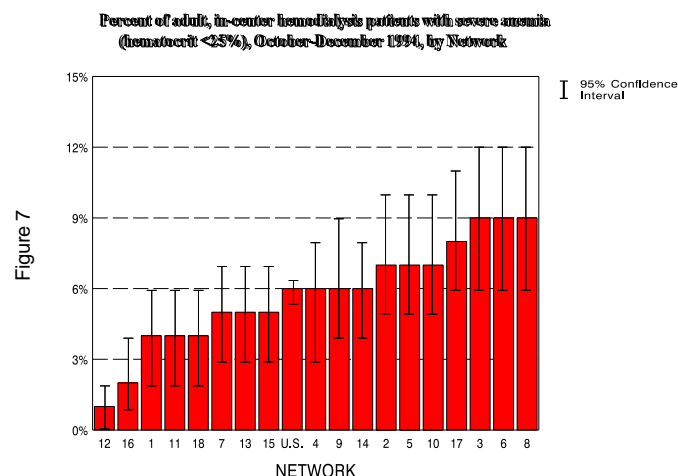
## Improvement:

- ⇒ Patients with a mean hematocrit  $>30\%$  increased significantly (Figure 6).

**Guideline:** The ESRD Anemia Workgroup has established a goal of increasing the percent of hemodialysis patients with a hematocrit  $>30\%$ .



**Opportunities for Improvement:** Although there was significant improvement in the percent of patients with hematocrit  $>30\%$ , 45% of patients still had hematocrit levels below this level. There was little change in the proportion of patients with severe anemia (hematocrit  $<25\%$ ). There was more than a fourfold variation in the percent of patients with severe anemia by Network in 1994 (Figure 7).



## NUTRITIONAL STATUS

### Findings for the last quarter of 1994:

- ⇒ Mean serum albumin value for patients determined by the bromcresol green (BCG) laboratory method = 3.7 gm/dL;
- ⇒ Mean by bromcresol purple (BCP) laboratory method = 3.6 gm/dL; and
- ⇒ Percent of patients in each Network area with mean serum albumin values  $\geq 3.5$  gm/dL by BCG or  $\geq 3.2$  gm/dL by BCP ranged from 71% to 83%.

**Guideline:** Although no consensus guidelines have been established, the following initial targets are being used in this study:  $\geq 3.5$  gm/dL (BCG method) or  $\geq 3.2$  gm/dL (BCP method).

**Opportunities for Improvement:** There was no clinically important change in this measure of nutritional status from 1993 to 1994; ...



**... therefore, opportunities to improve nutritional status and blood pressure control in hemodialysis patients remain.**

## BLOOD PRESSURE CONTROL

### Findings for the last quarter of 1994:

- ⇒ Mean pre-dialysis systolic blood pressure values = 151 mm Hg;
- ⇒ Mean pre-dialysis diastolic blood pressure values = 79 mm Hg;
- ⇒ 50% had pre-dialysis systolic blood pressure values  $> 150$  mm Hg; and
- ⇒ 15% had pre-dialysis diastolic blood pressure values  $> 90$  mm Hg.

**Guideline:** Although no consensus guidelines have been established, the following initial targets are being used in this study:  $< 150$  mm Hg systolic and  $< 90$  mm Hg diastolic.

**Opportunities for Improvement:** There was no clinically important change in this measure of blood pressure control from 1993 to 1994; ...



## NEXT STEPS

While important improvements occurred from 1993 to 1994, *opportunities to improve care further* for adult, in-center hemodialysis patients in the U.S. remain. The purpose of the ESRD core indicator project is to assess improvement in

care to these patients and to support further progress. The ultimate goal for this project is to improve care for all renal dialysis patients. To facilitate this goal, all ESRD facilities should:

- ⇒ Be familiar with the "Clinical practice guideline on adequacy of hemodialysis" developed by the Renal Physicians Association;
- ⇒ If needed, contact Network staff and Medical Review Board members for assistance in identifying opportunities for improvement and developing intervention strategies; and
- ⇒ Look for the complete 42-page report of the initial results of the 1995 ESRD Core Indicators Project which will be sent to all ESRD facilities.

In 1996 ESRD Networks, in collaboration with ESRD facilities, will once again assess the clinical measures of the ESRD Core Indicators in adult, in-center hemodialysis patients in the U.S. If you have any questions about the information presented in this brochure please contact the ESRD Network office in your area.

### Acknowledgments:

The Health Care Financing Administration (HCFA) wishes to acknowledge the following groups and persons without whose efforts this report would not have been possible:

- ◆ The End-Stage Renal Disease (ESRD) Network Organizations throughout the United States;
- ◆ Staff at more than 2,000 dialysis facilities in the U.S. who abstracted the requested information from medical records on more than 6,000 adult, in-center hemodialysis patients for both 1993 and 1994; and
- ◆ The many other individuals in the renal community and HCFA who contributed to this work.